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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,862	11/20/2003	George R. Dodge	06510029US	5643
7590 06/23/2006			EXAMINER	
McGuire Woods LLP Suite 1800 1750 Tysons Blvd. McLean, VA 22102			REIDEL, JESSICA L	
			ART UNIT	PAPER NUMBER
			3766	

DATE MAILED: 06/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/716,862	<b>Applicant(s)</b> DODGE ET AL.	
	<b>Examiner</b> Jessica L. Reidel	<b>Art Unit</b> 3766	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 10-18, 20-26, 28-35 and 37-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18, 20-26, 28-33, 39 and 40 is/are allowed.
- 6) ☒ Claim(s) 10-13, 16, 17, 34, 35, 37 and 38 is/are rejected.
- 7) ☒ Claim(s) 14 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Acknowledgement is made of Applicant's Amendment, which was received by the Office on April 10, 2006. Claims 1-9, 19 and 27 have been cancelled. The Examiner takes the position that Claim 36 has also been cancelled, due to it depending from cancelled Claim 1. Claims 37-40 are new and active. Claims 10-18, 20-26, 28-35 and 37-40 are pending.

#### ***Claim Rejections - 35 USC § 103***

2. *The indicated allowability of claims 10-17 has been withdrawn in view of the newly discovered reference(s) to Groiso (U.S. 6,966,911). Rejections based on the newly cited reference(s) follow.*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 10-13, 16-17, 34-35 and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michelson (U.S. 6,120,502) in view of Groiso. As to Claim 10-13, 17 and 37-38, Michelson discloses a bone growth inhibiting device 10 comprising a power source 60 (see Michelson Abstract, column 7, lines 40-47, column 9, lines 9-10 and lines 30-38 and column 10, lines 22-31) for generating "positive current" where bone growth is "not desired" (see Michelson column 10, lines 50-52). Device 10 of Michelson also comprises at least one anode 96 of electrode 30, read as one electrode, in electrical communication with the power source 60 (see Michelson column 9, lines 17-18 and column 10, lines 23-31) adapted to apply the positive

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current to a predetermined location of the bone (see Michelson Fig. 3A and column 10, lines 50-52). Michelson discloses the claimed invention as discussed above except that it is not specified that the positive current for reducing the growth of a bone be applied at a growth plate. Groiso, however, teaches that it is desirable to suppress and/or induce the growth of the epiphyseal growth plate of a bone when a patient suffers from length discrepancies and angular deformities of limbs (see Grosio column 1, lines 34-55). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device and method of Michelson in view of Grosio to further include applications at the growth plate such that deformities may be corrected through positive current electrical bone growth inhibition.

5. As to Claim 34, it is inherent or at least obvious to one having ordinary skill in the art at the time the invention was made that the bone would continue to grow in a region where the current is not applied.

6. As to Claim 16, the previously modified Michelson reference discloses the claimed invention as discussed above except that the current effective to inhibit/reduce bone growth is not specified to be at least 50  $\mu\text{A}$ . It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the power source and the at least one electrode deliver a positive current/charge of at least 50  $\mu\text{A}$ , since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

7. As to Claim 35, the previously modified Michelson reference discloses the claimed invention as discussed above except that the current effective to inhibit/reduce bone growth is not specified to be at least 35  $\mu\text{A}$ . It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the power source and the at least one electrode

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deliver a positive current/charge of at least 35  $\mu$ A, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

*Allowable Subject Matter*

8. Claims 18, 20-26, 28-33 and 39-40 are allowed.
9. Claims 14-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Conclusion*


10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Brighton (U.S. 4,467,809) teaches epiphyseal growth plate stimulation in the bone of a living body by applying electrodes non-invasively to a body.

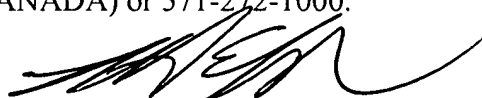
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica L. Reidel whose telephone number is (571) 272-2129. The examiner can normally be reached on Mon-Thurs 8:00-5:30, every other Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Jessica L. Reidel 06/19/06  
Examiner  
Art Unit 3766

  
Robert E. Pezzuto  
Supervisory Patent Examiner  
Art Unit 3766